

CLAIMS

- 5 **1.** Process designed to prevent deposition of polarized first particles originating from at least one contamination source on the free surface of a micro-component arranged in a vacuum chamber, process consisting in sputtering a beam of second particles between the contamination source and the micro-component, at least a part of which second particles has an opposite polarity from that of the first particles, so as to drag the first particles away from the micro-component to a collecting element.
- 10 **2.** Process according to claim 1, wherein the beam of second particles is a plasma.
- 15 **3.** Process according to claim 2, wherein the plasma is formed by a gas or a mixture of gases chosen from neon, helium, hydrogen, argon or xenon.
- 4.** Process according to claim 2, wherein the voltage designed to generate the plasma is comprised between 50 Volts and 200 Volts.
- 20 **5.** Process according to claim 1, wherein the micro-component comprises a substrate whereon at least one thin layer is designed to be deposited, and the first particles are dragged by a flow of sputtered matter designed to form said thin layer, the beam of second particles passing through the flow of sputtered matter upstream from the micro-component.
- 25 **6.** Process according to claim 5, wherein the flow of sputtered matter is formed by bombardment of a target by a sputtering plasma.
- 30 **7.** Process according to claim 6, wherein the beam of second particles passes simultaneously through the sputtering plasma and the flow of sputtered matter.
- 8.** Process according to claim 6, wherein deposition of the thin layer is performed by ion beam sputtering.
- 35 **9.** Process according to claim 6, wherein deposition of the thin layer is performed by cathodic sputtering.

10. Process according to claim 5, wherein deposition of the thin layer is performed thermal evaporation by Joule effect.

5 **11.** Storage device comprising a vacuum chamber wherein there is arranged at least one micro-component, device comprising a source emitting the beam of second particles parallel to and near the free surface of the micro-component for implementation of the process according to claim 1.

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12. Thin layer deposition device comprising a vacuum chamber wherein there is arranged a micro-component comprising at least one substrate and means for sputtering a flow of matter designed to form at least one thin layer on the surface of the micro-component, device comprising a source emitting
15 the beam of second particles in the direction of the flow of matter so that it drags the first particles contained in the flow away from the micro-component, for implementation of the process according to claim 5.